

Fiber Laser Marking System DIKAI DFR Series



The new DFR Series fiber laser marking systems adopt a new intelligent vector control algorithm, which greatly improves the marking speed. DFR Series lasers has smaller size, lower maintenance, no consumables and provides permanent high-quality coding. Can be commonly used in food, cosmetics and other industries of flexible packaging, hard plastic (PE/PP), metal and other materials to print high contrast logo, to ensure the traceability of the product permanently.

Marking Performance

- * Faster marking speed, up to 700 characters/s, 200m/min.
- * The new intelligent control algorithm provides high quality marking technology.
- * Enhanced anti-electromagnetic design ensures stable operation in harsh environment.



Easily Integration

- * Compact independent design, can be better integrated into various application with smallest fiber laser marking head on the market.
- * Lasers with different powers outputs meet all requirements from different industries.
- * Unlimited fonts, graphics and bar code applications.



Simple Operation

- * Control the laser through a range easy-to-use interfaces, reducing the risk of product rework and recalls.
- * Innovative interface is easy to learn and easy to understand, more convenient and fast operation.
- * Red light locating is standard equipped.
- * One bottom on/off.



High stability

- * laser source lifetime MTBF: 100000hours.
- * Designed for the needs of a 24/7 production.
- * Operating environments: -6~45°C.
- * IP65 rating – ready for harsh production environments.



Fiber Laser Marking System

DIKAI DFR Series

Laser Type

- * Adjustable pulse fiber laser $\lambda=1064\text{nm}$, Nd. YAG
- * MTBF $\geq 100,000$ hours

Model	DFR20	DFR30	DFR50
Power	20W	30W	50W
Characters/S	700	900	1200
Line Speed*	120M/Min	180M/Min	200M/Min

Printing Features

- * Characters Height: 0.8mm to allowable area
- * Number of Lines: Limited only by character height and allowable print area
- * Marking area :50*50mm, 70*70mm, 110*110mm, 150*150mm, 175*175mm, 220*220mm, 350*350mm, 450*450mm
- * Focal Lens: 63mm,990mm,184mm,245mm,298mm,385mm

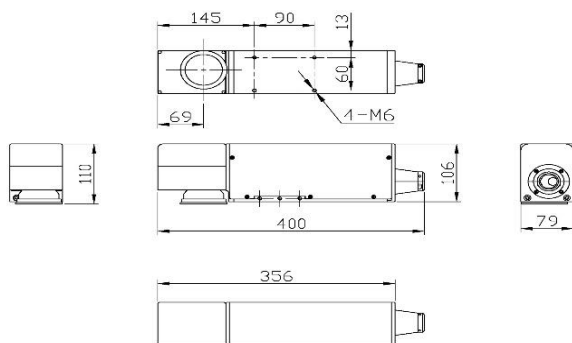
MA (mm)	70	110	150	175	220	350	450
FL (mm)	99	184	245	298	385	463	610

Marking Data

- * Serial number, text, date, time, fonts, etc.
- * Multi - language support, user - defined fonts, counter, shift code
- * Codes Support: Barcode, QR-code, Code128, Code 39, Data-Matrix Code,
- * Document Type: BMP/DXF/HPGL/JPEG
- * Graphic Element: Points, lines, arcs, rectangles,

Operation Interface

- * 10.1inch touch screen, QWERTY or AZERTY virtual keyboard, quick icon wizard operations, online help



Communication Interface

- * Rs-232, Ethernet (10/100 Mbit), USB port, SD card
- * I/O: PN/PNP/24V – detector
- * Speed Detection: Encoder or synchronizing signal
- * Input Signal: Start, stop, interlock
- * Output Signal: Status indication, cooling device control, machine remote control

Other Characteristics

- * Outlook: Stainless steel support structure, anodized alumina
- * Power: 90-264V AC,47-63Hz,800W
- * Cooling system: Air cooling
- * Operation Environment: -6-45°C,10%-90%RH, non-condensing
- * Ip Rating: IP55; IP65(Optional)

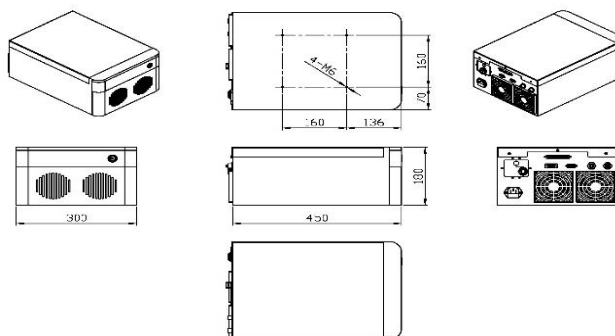
Optional

- * Network and remote-control software (TCP/IP)
- * Ethernet remote PC operation
- * User - defined fonts

Accessory

- * Fume extractor
- * Complete stand bracket
- * Encoder & Photocell
- * Alarm

- * The quantity of characters printed each second and production line speed depends on the surface material and marking content.



VISIBLE AND INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
 MAX. AVERAGE POWER: 50W
 MAX. PULSE ENERGY: 1.1 mJ
 PULSE DURATION: 1 - 300 ns
 WAVELENGTH: $\lambda = 1040 - 1090 \text{ nm}$
 LASER CLASS 4



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